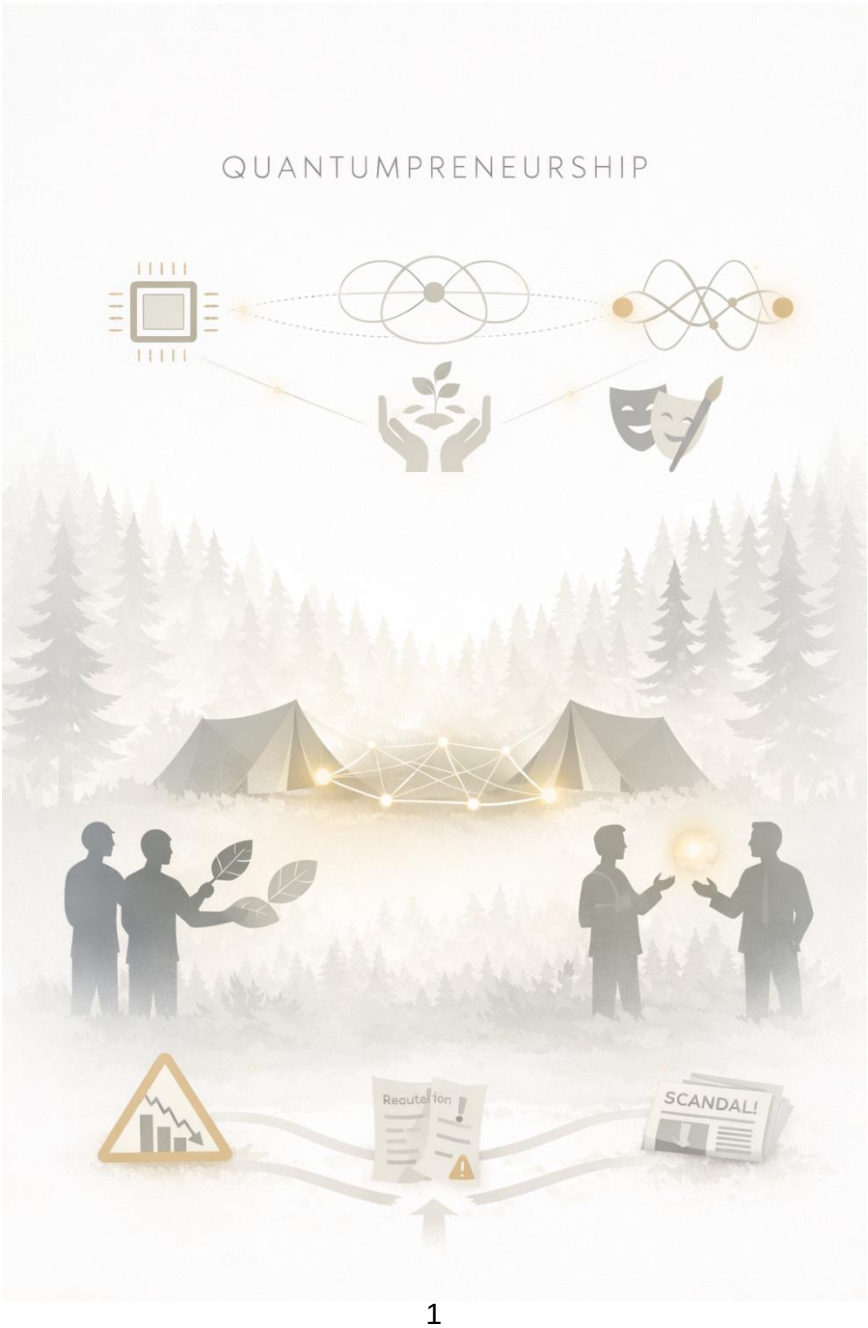
Quantumpreneurship - Quantum Startup Challenge

Programme type: Erasmus+ / Training Course
Activity category: Entrepreneurship & Future Skills (Outdoor Learning)
Topic focus: Introduction to Quantum Thinking (Beginner-friendly), Entrepreneurship
Duration: 90–120 minutes
Group size: 12–30 participants (teams of 3–5)
Location: Outdoor Park / Indoor space
Created by: Seg Kirakossian, for the E+ training course **"Quantum Ready: Shaping Careers in a Transformative World" that took place in Luxembourg from 23 to 29 January 2026, organized by FSLuxembourg and financed by the Luxembourgish national agency Anefore.**



1. Activity Overview

This activity introduces participants to **quantum-inspired thinking** through an **outdoor entrepreneurial challenge**. Without using mathematics or technical language, participants experience:

- uncertainty
- multiple possibilities
- interdependence
- adaptation to change

The activity links **future technologies**, **entrepreneurship**, and **creative thinking** using embodied, playful, and reflective learning methods.

2. Learning Objectives

By the end of the activity, participants will:

- understand that future innovation often works under **uncertainty**, not full control
- explore entrepreneurship beyond linear problem-solving
- develop creativity, adaptability, and systems thinking
- experience core ideas behind quantum logic through action

3. Key Competences (YouthPass)

- ✓ Sense of initiative and entrepreneurship
- ✓ Cultural awareness and expression
- ✓ Personal, social and learning-to-learn competence
- ✓ Citizenship competence
- ✓ Creativity and critical thinking

4. Materials Needed

- Natural/Indoors environment (forest / park / hall)
- Small bags or hands to collect natural objects
- Paper & markers (optional, minimal use)
- Timer or phone

5. Activity Flow

Step 1 – Framing the Challenge (5 minutes)

Facilitator reads aloud:

> "You are founders - building a startup based on **quantum logic**, not classical logic.
> Your product does NOT have to be a quantum computer — it must *think* quantum."

Explain simply:

- No right or wrong answers
- No need for technical knowledge
- Openness and experimentation are encouraged

Step 2 – One Startup, Three Faces (15 minutes)

Each team creates **ONE startup** that is **simultaneously**:

- a **tech product**
- a **social solution**
- an **artistic experience**

Important rule:

> Teams are NOT allowed to choose only one identity yet. The startup must stay all three at the same time.

Step 3 – Forest Objects: Multiple Identities (15 minutes)

Teams go into the forest and collect **3 natural objects**:

- Object 1 → represents the *tech* identity
- Object 2 → represents the *social* identity
- Object 3 → represents the *artistic* identity

Objects are symbolic. Meaning is defined by the team.

Step 4 – Invisible Entanglement (Ongoing)

Each team is **secretly connected** to another team.

Facilitator rule:

- When one team makes a major change to their startup, the connected team must also change **one element**, without explanation.

Participants are not told why this happens.

Step 5 – No-Algorithm Pitch 🎤 (20 minutes)

Teams prepare a pitch with special rules:

They may NOT use:

- slides
- flipcharts
- linear storytelling (beginning–middle–end)

They MUST use:

- movement
- objects
- silence or sound
- space and positioning

At the pitch moment, the startup finally **chooses ONE dominant form**.

Step 6 – Measurement & Sudden Changes (10–15 minutes)

During preparation or pitching, the facilitator introduces disruptions such as:

- “Your main investor withdraws.”
- “Your product causes unexpected social harm.”
- “A new regulation limits your service.”

Teams must adapt immediately.

6. Reflection & Debrief (20 minutes)

Participants sit in a circle. Ask:

- When did you feel uncomfortable or confused?

- What happened when you couldn’t decide early?
- How did other teams’ changes affect you?
- What does this say about real startups or future technologies?

Facilitator closes with:

> “In quantum systems, observation changes reality.
> In startups, feedback does the same.”

Key Concepts (Translated Simply)

Quantum Concept	How It Appears in the Activity
Superposition	**Startup exists as tech + social + art at once**
Collapse	**The final decision happens only at the pitch**
Entanglement	**Teams influence each other invisibly**
Measurement	**Interventions change outcomes**
Probability	**No guaranteed success path**

7. Facilitator Notes

- Avoid technical explanations of quantum computing
- Let experience come before theory
- Discomfort and ambiguity are part of the learning
- Emphasize reflection, not performance quality

8. Adaptation Options

- **Younger participants (15–18):** focus on play and metaphors
- **Older participants (18–30):** connect to real-world quantum applications
- **Creative groups:** link outcomes to film, storytelling, or performance
- **Urban version:** replace forest objects with city elements